

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3, 5 and 9-11 are pending in this application. Claims 1-3, 5 and 9 are amended; and Claims 10-11 are newly added by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings. New Claims 10 and 11 recite features similar to Claims 1 and 2, but are drafted to avoid interpretation under 35 U.S.C. § 112, sixth paragraph. No new matter is presented.

In the outstanding Office Action, Claims 2, 5 and 9 were rejected under 35 U.S.C. §102(b) as anticipated by Deder et al. (European Patent No. 1 050 977; hereinafter Deder); and Claims 1 and 3 were rejected under 35 U.S.C. §103(a) as unpatentable over Holtzman et al. (U.S. Pub. 2002/0160783, hereinafter Holtzman) in view of Deder.

The undersigned appreciatively acknowledge the courtesy extended by Examiner Safaipour and Supervisory Patent Examiner Anderson by holding a personal interview with the undersigned on January 14, 2008. During the interview, an overview of the invention was presented and proposed claim amendments were discussed that Examiner Safaipour indicated would overcome the applied references. In the present response, the claims are amended as discussed during the interview.

In the outstanding Office Action, Claims 2, 5 and 9 were rejected under 35 U.S.C. §102(b) as anticipated by Deder. In response to this rejection, Applicants respectfully submit that amended independent Claims 2, 5 and 9, and new Claim 11, recite novel features clearly not taught or rendered obvious by the applied references.

Amended independent Claim 2 recites a transmission power control method in a radio communication system comprising a base station and mobile stations, comprising:

determining *a transmission power* required to satisfy a predetermined reception error rate required for radio communication between the base station and the mobile stations; and

setting a transmission power margin level added to the required transmission power so that the added transmission power margin level increases as the data retransmission count in an uplink or in a downlink increases.

Independent Claims 5, 9 and 11, while directed to alternative embodiments, recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 2, 5, 9 and 11.

As depicted in Figs. 6B-6C, for example, the method improves on previous power control methods by decreasing the power margin allocated to non-real-time communications, as compared to real-time communications. The method helps to more efficiently use system resources, while also decreasing the overall interference generated by the transmission of non-real-time communications.

Turning to the applied reference, Deder describes a power control system for a wireless communications system that adjusts the transmit power of a wireless transmitter in relation to a number of acknowledgements expected for radio transmissions over a wireless link.¹

Deder, however, fails to disclose *setting a transmission power margin level added to a required transmission power* based on a data retransmission count, as recited in independent Claim 2.

In rejecting the features directed to setting a transmission power margin, the Office Action relies on paragraph [0021] of Deder. This cited portion of Deder describes that a wireless modem (WM) of a mobile station sends an association request to associate with a base station component (i.e. AP 24). Each time the WM sends an association request and

¹ Deder, Abstract.

fails to receive an ACK from the AP, the WM increases the transmission power until either an ACK is received, or a transmission power threshold is reached.

Thus, Deder merely describes increasing a transmission power until an ACK message is received, and fails to teach or suggest that a retransmission count is used to set a transmission margin to be added to an already determined required transmission power, as recited in independent Claim 2. More specifically, Deder clearly describes that the transmission margin is “P_TXMargin” and this value is not altered by the adjustment of the transmit power from the WM in an attempt to receive an ACK from the AP.

Paragraph [0020] also describes that the transmit power margin is “programmable,” but fails to teach or suggest programming the margin based on a data retransmission count, as claimed. Instead, Deder only describes altering the transmit power, not the ***transmission power margin***.

Therefore, Deder fails to teach or suggest “determining ***a transmission power*** required to satisfy a predetermined reception error rate required for radio communication between the base station and the mobile stations” and “***setting a transmission power margin level added to the required transmission power*** so that the added transmission power margin level increases as the data retransmission count in an uplink or in a downlink increases,” as recited in amended independent Claim 2

Accordingly, Applicants respectfully request that the rejection of Claims 2, 5 and 9 were rejected under 35 U.S.C. §102 be withdrawn. For substantially similar reasons, it is also submitted that new independent Claim 11 patentably defines over Deder.

Claims 1 and 3 were rejected under 35 U.S.C. §103(a) as unpatentable over Holtzman in view of Deder. In response to this rejection, Applicants respectfully submit that amended

independent Claims 1 and 3, and new Claim 10, recite novel features clearly not taught or rendered obvious by the applied references.

Amended independent Claim 1, recites, *inter alia*, a transmission power control method, comprising:

determining that a communication to be transmitted from the base station to the mobile station is either real-time traffic or non-real time traffic based on at least one of a transmission delay, maximum retransmission count and reception error rate corresponding to the communication;

determining a transmission power required for radio communication between the base station and the mobile stations;

setting a transmission power margin level added to the transmission power to a first value if the communication is real-time traffic and a second value is the communication is non-real time traffic, wherein the first value is greater than the second value...

Independent Claim 3 and new Claim 10, while directed to an alternative embodiments, recite similar features. Accordingly, the remarks presented below are applicable to each of independent Claims 1, 3 and 10

The Official Action rejected Claims 1 and 3 under 35 U.S.C. 103(a) as unpatentable over Holtzman in view of Deder. The Official Action cites Holtzman as disclosing the applications invention with the exception of “that the communication based on at least one of a transmission delay, maximum transmission count and reception error rate corresponding to the communication.” The Official Action cites Deder as disclosing this claimed feature and states that it would have been obvious at the time the invention was made to combine the cited references to arrive at Applicant’s claims. Applicants respectfully traverse this rejection as the applied references fail to teach or suggest the claimed features for which each is asserted under 35 U.S.C. 103.

Holtzman, the primary reference, describes a method and apparatus for scheduling transmit rates and power levels for data in conjunction with a voice-data communication during conditions of soft handoff.²

Holtzman, however, fails to teach or suggest “*setting a transmission power margin level added to the transmission power*” based on whether the traffic is real-time or non-real-time, as claimed.

In rejecting this claimed feature, the Office Action relies on paragraphs [0036-0037] of Holtzman. This cited portion of Holtzman describes using supplemental channels for voice and/or data transmission when the resources are available at the base station adjusting a data rate to control a transmission power level. Paragraphs [0036-0037] of Holtzman, however, fail to teach or suggest “*setting a transmission power margin level added to the transmission power*,” whatsoever, much less setting a transmit power margin based on the nature of the traffic, as claimed.

The Office Action then relies on paragraphs [0020-0023] Deder to reject the claimed feature directed to “determining that a communication to be transmitted from the base station to the mobile station is either real-time traffic or non-real time traffic based on at least one of a transmission delay, maximum retransmission count and reception error rate corresponding to the communication.”

More specifically, the Office Action notes the “maximum allowable association requests” of Deder. However, this parameter in Deder merely refers to the number of association requests permitted by the WM, and is not related to determining whether traffic to be transmitted from a base station is either real-time or non-real-time, as claimed.

² Holtzman, Abstract.

Accordingly, Applicants respectfully request that the rejection of independent Claims 1 and 3 under 35 U.S.C. 103 be withdrawn. For substantially similar reasons, it is also submitted that new independent Claim 10 patentably defines over Holtzman and/or Deder.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-3, 5 and 9-11, is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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